
FULL TEXT OF CASES (USPQ FIRST SERIES)

In re Uhlig, 153 USPQ 460 (CCPA 1967)

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(CCPA)

153 USPQ 460

Decided May 4, 1967

Appl. No. 7784

U.S. Court of Customs and Patent Appeals

Headnotes

PATENTS

1. Specification - Sufficiency of disclosure (§ 62.7)

Disclosure in reference is not limited to its specific illustrative examples, but must be considered as a whole to ascertain what would be realistically suggested thereby to one of ordinary skill in the art.

Particular patents-Printing

Uhlig, Process for the Preparation of Printing Plates, claims 1 to 8, 10, 11, and 14 to 16 of application refused.

Case History and Disposition:

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Appeal from Board of Appeals of the Patent Office.

Application for patent of Fritz Uhlig, Serial No. 15,279, filed Mar. 16, 1960; Patent Office Group 470 From decision rejecting claims 1 to 8, 10, 11, and 14 to 16, applicant appeals. Affirmed.

Attorneys:

James E. Bryan, Washington, D. C., for appellant.

Joseph Schimmel (Jack E. Armore of counsel) for Commissioner of Patents.

Judge:

Before Worley, Chief Judge, Rich, Smith, and Almond, Associate Judges, and Kirkpatrick, Judge. *

Opinion Text

Opinion By:

Worley, Chief Judge.

This is an appeal from the decision of the Board of Appeals affirming the examiner's rejection of process claims 1-8, 10 and 11 and article claims 14-16 in appellant's application ¹entitled "Process for the Preparation of Printing Plates."

The application relates to processes for producing printing plates by an electrophotographic technique, and to the printing plate so prepared. The process includes coating a support layer with a photoconductive insulating material, the latter containing organic photoconductors dispersed in insulating resins having groups that confer alkali solubility. An electrostatic charge is uniformly applied to the photoconductive insulating layer in the dark, and the layer is then photographically exposed to an original of which a copy is desired. Where light strikes, the photoconductive layer becomes conductive and the charges in that area drain away in proportion to the intensity of illumination, leaving an electrostatic latent image in the non-illuminated areas. Appellant applies an alkali-resistant developer powder which is electrostatically attracted to the latent image, fixes the powder in a conventional manner by heating, and subsequently treats the imaged surface with alkaline liquids to remove the photoconductor and alkali-soluble resin coating from the non-image areas. The image areas, formed by the alkali-resistant, oleophilic developer powders, attract ink; the image free areas, now consisting of the paper or aluminum support from which the alkali-soluble insulating resin has been removed, are hydrophilic and preferentially attract water. The subject matter is reflected in claims 1, 7, 8 and 14:

1. A process for preparing a printing plate which comprises treating with an alkaline liquid a supported, uniform, homogeneous, thin layer comprising an organic photoconductor and an alkali-soluble resin, the layer having fixed alkali-resistant image areas and alkali-soluble image-free areas thereon, whereby the image-free areas are removed from the support.
7. A process according to claim 1 in which the alkaline liquid contains a thickener.
8. A process according to claim 1 in which the alkaline liquid contains a water-soluble silicate.
14. A printing plate comprising a base material having hydrophilic non-image areas and oleophilic image areas thereon, the latter comprising an alkali-resistant layer fixed to a supported, uniform, homogeneous, thin, intermediate layer comprising an organic photoconductor and an alkali-soluble resin.

The references are:

Ayers 2,233,573 March 4, 1941.

Sus et al. 3,041,165 June 26, 1962 (filed July 2, 1957).

Sugarman (Australia) 210,374 Sept. 12, 1957.

Wakeman, The Chemistry Of Commercial Plastics, 1947, page 249.

Mellan, Industrial Solvents, 2nd Edition, 1950, pages 400, 423 and 424.

Schildknecht, Vinyl And Related Polymers, 1952, page 299.

The examiner rejected claims 14-16 as "fully met by Sus," presumably under 35 U.S.C. 102(e). He noted that Sus discloses coating an organic photoconductor-resin mixture onto a paper or aluminum support; charging the layer; exposing; developing the electrostatic image with an ink-attracting developer powder; fixing the powder image, and using the resultant material to form printing plates. Sus states:

After being fixed these electrophotographic images can be converted into printing plates: the support, e.g., the paper or plastic foil, is wiped over with *a solvent* for the photoconductive layer, e.g., ethyl alcohol, or acetic acid and then rinsed with water and

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rubbed in with greasy ink in known manner. In this way positive printing plates are obtained which can be set up in an offset machine and used for printing. They give very long runs. (Emphasis supplied)

While the examiner conceded that Sus is "completely silent as to the alkali-resistance of the developer powder and the alkali-solubility of * * * [the] resins" used, he noted that the alkali-resistant developer powder disclosed by appellant appears to be no different than that employed by Sus or the art generally, and that the specific resin materials disclosed by appellant as binders for the organic photoconductor are also disclosed by Sus. ²"Since both the outer and intermediate layers of the image areas of the Sus * * * printing plate may be of the same materials as disclosed * * * [by appellant]," said the examiner, "it is believed that the Sus * * * teaching includes a printing plate that has all the structure and is made of the materials set forth in these claims."

The examiner viewed the subject matter of process claims 1-7, 10 and 11 to be obvious in view of Sus, stating:

* * * It is believed that one skilled in the art, knowing what conventional expedients there are in the art, (as evidenced by the background references of record herein) and having the teaching of Sus * * before him, would find it to be obvious to choose a suitable alkaline liquid (including the specific conventional types of such resin solvents called for in dependent claims 2 to 6) as a substitute for the solvents that are specifically named as examples of suitable ones in Sus * * *.

Noting that appellant discloses no specific advantage or reason for the "thickener" recited in claim 7, the examiner regarded it to be obvious to place a thickener in the alkaline liquid if it were desirable to thicken it. He rejected claim 8 as "unpatentable over" Sus in view of Ayers, the latter reference disclosing the treatment of non-image areas of a printing plate with a water-soluble silicate to enhance the hydrophilic properties of said areas, the same purpose for which appellant employs a silicate.

The board affirmed the examiner's rejection "for the reasons stated" by him.

Appellant does not challenge the examiner's finding that the conventional developer powders employed by Sus to form the image areas of his printing plate are in fact alkali-resistant. Rather, appellant argues here that there is absolutely nothing in Sus to suggest the use of any alkaline liquid in a process for preparing a printing plate, or to suggest that the resins employed by Sus in his photoconductive insulating layer are in fact alkali-soluble. Appellant urges:

* * * The examiner has alleged that at least some of the resins disclosed in the Sus et al patent are soluble in alkali but this rejection obviously is based on facts within the personal knowledge of an employee of the office in view of the absence of any disclosure supporting it in the patent. Accordingly, an affidavit under Rule 107 in support of the examiner's position has been requested but the affidavit has not been supplied.

[1] We do not think that the Sus disclosure is as limited as appellant attempts to make it in arguing that Sus discloses only the use of ethyl alcohol or acetic acid for removing the non-imaged portions of the photoconductive insulating layer. Sus discloses the use of *solvents* for that purpose, with ethyl alcohol and acetic acid but exemplary. It seems to us one of ordinary skill in the art would be aware of the fact that many of the resins disclosed by Sus (and also by appellant here) are indeed alkali-soluble and that alkali solutions could be used as solvents to remove the non-imaged portions of Sus'

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photoconductive insulating layer. ³A disclosure in a reference is not limited to its specific illustrative examples, but must be considered as a whole to ascertain what would be realistically suggested thereby to one of ordinary skill in the art. See *In re Chapman*, 53 CCPA 978, 357 F.2d 418, 148 USPQ 711.

Nor do we find any error in the examiner's and board's refusal to supply appellant with an affidavit under Patent Office Rule 107. ⁴Upon being asked for such an affidavit in the proceedings below, the examiner replied:

Applicant's attorney, in the Brief, again requests an affidavit under Rule 107, although it has repeatedly been pointed out to him during the prosecution of this case that the rejection of the claims is based upon conclusions drawn from the evidence in the record and is *not* based on facts within the personal knowledge of any employee in the Patent Office.

The examiner also supported his views with citations from the Wakeman, Mellan and Schildknecht references, pointing out that those evidentiary materials collectively establish that such resins as alkyd and colophony resins are known to be soluble in various alkalies. Under the circumstances, it seems apparent that the knowledge relied on by the examiner is nothing peculiarly within the personal knowledge of a Patent Office employee as appellant alleges, but is a matter of common knowledge in the art.

While we appreciate appellant's arguments, we are satisfied that no reversible error appears in the decision appealed from, and it is *affirmed*.

Footnotes

Footnote 1. Serial No. 15,279, filed March 16, 1960.

Footnote 2. The examiner observed that appellant states in his specification that the latent electrostatic image may be "developed in known manner with a pigmented resin powder of the type commonly used." It appears from the record that both appellant and Sus use a polystyrene/rosin mixture to which carbon black has been added for that purpose.

The examiner also pointed out that both Sus and appellant disclose the use of phthalate resins, maleic acid resins, alkyd resins and colophony modified resins as binder materials for the organic photoconductor, and stated in summary:

* * * It is considered, therefore, that the [fixed developer powder] image areas of Sus * * * inherently have the alkali-resistance called for in these claims and that at least those [binder] resins named in Sus * * * that are also named in this application are alkali soluble. The resistance to, or solubility in, any specific solvent or type of solvent is an innate, inherent characteristic of a material, regardless of whether * * * this is or is not mentioned either in the reference relied upon or in the instant specification. * * *

Footnote 3. The use of alkaline liquids to dissolve or remove alkali-soluble portions of printing plate coatings, which may or may not include alkali-soluble resins, can hardly be said to be a concept foreign to the printing plate art in general-see, for example, the description of preparation of printing plates by photographic techniques in *In re Sus*, 49 CCPA 1301, 1307, 306 F.2d 494, 498, 134 USPQ 301, 301; *In re Schmidt*, 48 CCPA 1140, 293 F.2d 274, 130 USPQ 404.

Footnote 4. That rule reads in pertinent part:

* * * When a rejection is based on facts within the personal knowledge of an employee of the Office, the data shall be as specific as possible, and the reference must be supported, when called for by the applicant, by the affidavit of such employee, and such affidavit shall be subject to contradiction or explanation by the affidavits of the applicant and other persons.

Footnote * Senior District Judge, Eastern District of Pennsylvania, sitting by designation.

- End of Case -

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